

CLAIMS

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1. An isolated polypeptide comprising an amino acid sequence which has at least 85% identity to the amino acid sequence selected from the group consisting of: SEQ ID NO:2, SEQ ID NO:4 and SEQ ID NO:6.
 2. An isolated polypeptide as claimed in claim 1 in which the amino acid sequence has at least 95% identity to the amino acid sequence selected from the group consisting of: SEQ ID NO:2, SEQ ID NO:4 and SEQ ID NO:6.
 3. The polypeptide as claimed in claim 1 comprising the amino acid sequence selected from the group consisting of: SEQ ID NO: 2, SEQ ID NO:4 and SEQ ID NO:6.
 4. An isolated polypeptide of SEQ ID NO:2, SEQ ID NO:4 and SEQ ID NO:6.
 5. An immunogenic fragment of the polypeptide as claimed in any one of claims 1 to 4 in which the immunogenic activity of said immunogenic fragment is substantially the same as the polypeptide of SEQ ID NO:2, SEQ ID NO:4 or SEQ ID NO:6.
 6. An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that has at least 85% identity to the amino acid sequence of SEQ ID NO: 4 or 6 over the entire length of SEQ ID NO: 4 or 6 respectively; or a nucleotide sequence complementary to said isolated polynucleotide.
 7. An isolated polynucleotide comprising a nucleotide sequence that has at least 85% identity to a nucleotide sequence encoding a polypeptide of SEQ ID NO: 4 or 6 over the entire coding region; or a nucleotide sequence complementary to said isolated polynucleotide.

8. An isolated polynucleotide which comprises a nucleotide sequence which has at least 85% identity to that of SEQ ID NO: 3 or 5 over the entire length of SEQ ID NO: 3 or 5 respectively; or a nucleotide sequence complementary to said isolated polynucleotide.
- 5 9. The isolated polynucleotide as claimed in any one of claims 6 to 8 in which the identity is at least 95% to SEQ ID NO: 3 or 5.
- 10 10. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:4 or SEQ ID NO:6.
- 11 11. An isolated polynucleotide comprising the polynucleotide of SEQ ID NO:3 or SEQ ID NO:5.
- 15 12. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:4 or SEQ ID NO:6, obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having the sequence of SEQ ID NO:3 or SEQ ID NO:5 or a fragment thereof.
- 20 13. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:2.
14. An isolated polynucleotide comprising the polynucleotide of SEQ ID NO:1.
- 25 15. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:2, obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having the sequence of SEQ ID NO:1 or a fragment thereof.

16. An expression vector or a recombinant live microorganism comprising an isolated polynucleotide according to any one of claims 6 - 15.
17. A host cell comprising the expression vector of claim 16 or a subcellular fraction or a membrane of said host cell expressing an isolated polypeptide comprising an amino acid sequence that has at least 85% identity to the amino acid sequence selected from the group consisting of: SEQ ID NO:4 or SEQ ID NO:6.
18. A process for producing a polypeptide comprising an amino acid sequence that has at least 85% identity to the amino acid sequence selected from the group consisting of SEQ ID NO:4 or SEQ ID NO:6 comprising culturing a host cell of claim 17 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture medium.
19. A process for expressing a polynucleotide of any one of claims 6 - 15 comprising transforming a host cell with the expression vector comprising at least one of said polynucleotides and culturing said host cell under conditions sufficient for expression of any one of said polynucleotides.
20. A vaccine composition comprising an effective amount of the polypeptide of any one of claims 1 to 5 and a pharmaceutically acceptable carrier.
21. A vaccine composition comprising an effective amount of the polynucleotide of any one of claims 6 to 15 and a pharmaceutically acceptable carrier.
22. The vaccine composition according to either one of claims 20 or 21 wherein said composition comprises at least one other *Neisseria meningitidis* antigen.

23. An antibody immunospecific for the polypeptide or immunological fragment as claimed in any one of claims 1 to 5.

24. A method of diagnosing a *Neisseria meningitidis* infection, comprising identifying a polypeptide as claimed in any one of claims 1 - 5, or an antibody that is immunospecific for said polypeptide, present within a biological sample from an animal suspected of having such an infection.

25. Use of a composition comprising an immunologically effective amount of a polypeptide as claimed in any one of claims 1 - 5 in the preparation of a medicament for use in generating an immune response in an animal.

26. Use of a composition comprising an immunologically effective amount of a polynucleotide as claimed in any one of claims 6 - 15 in the preparation of a medicament for use in generating an immune response in an animal.

27. A therapeutic composition useful in treating humans with *Neisseria meningitidis* disease comprising at least one antibody directed against the polypeptide of claims 1 - 5 and a suitable pharmaceutical carrier.

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B'

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C'